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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,617	11/25/2003	Jorge Sanchez	082338.00013	7713

7590

09/30/2005

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EXAMINER

ZEMEL, IRINA SOPJIA

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/721,617

Applicant(s)

SANCHEZ ET AL.

Examiner

Irina S. Zemel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/12/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-8, 20, 22-25, and 27-30 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for polyvinyl chloride resins, does not reasonably provide enablement for any other resins suitable for the claimed modeling compositions. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. While the applicants state in the specification that other resins can be used in the invention, no guidance to what kind of resins, their amounts in the compositions or any characteristics of the suitable resins is provided anywhere in the specification. It would clearly require undue experimentation to determine which one of millions of thermoplastic resins available on the market would be suitable for the claimed modeling compounds.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Patent 5,658,969 to Gerace (hereinafter "Gerace").

Gerace discloses a compositions comprising a PVC resin, a primary plasticizer, a stabilizer, microspheres and a rheology modifying filler such as aluminum oxide, talk, silica, etc., which are known thixotropic rheology modifying fillers. Various plasticizers disclosed in the reference, such as those disclosed in columns 16-17 and which include monomeric and polymeric plasticizers, are disclosed as usable alone (primary plasticizer) or in combination with one another (secondary plasticizer). The reference further expressly disclosed various stabilizers such as surfactants or UV stabilizers, etc.. The microspheres disclosed in "The Microspheres" section of the reference fully correspond to the claimed microspheres. The relative amounts of all of the components disclosed in the examples and throughout the reference satisfy the claimed amounts.

The reference does not disclose suitability of the plastisol compounds to be used as modeling compounds, however, the limitation "modeling compound" is an intended use limitation, this limitation is given weight only to the extent that the composition disclosed in the reference is capable of being used such. The disclosed composition is inherently capable for the claimed use because the claimed composition is believed to be identical to the composition disclosed in the reference, and based from the viscosity parameters of the compositions illustrated in the reference. Therefore, the preamble limitation is anticipated by the reference. The burden is shifted to the applicant to provide convincing factual evidence to the contrary.

### ***Claim Rejections - 35 USC § 103***

Claims 1-3, 6-11, 13-14, 16-22, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over SU 907036 (hereinafter "SE '036") in combination with US Patent 5,607,993 to Christy (hereinafter "Christy") or US Patent 5,506,280 to Miller et al., (hereinafter "Miller").

The SU '036 reference discloses modeling compositions comprising PVS, two-components plasticizer comprising the primary (dioctylphthalate) and secondary (CaO) plasticizer, a stabilizing wax and a filler such as kaolin or talk. Since no specific function of a stabilizer is claimed in any of the claims, any stabilizing compound (including known surfactants) meet the claim limitation of a stabilizer. The amounts of all of the components and their ranges disclosed in the reference overlap with the claimed

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amounts (see, for example, bottom of column 2). Choosing any amounts from the disclosed ranges, including those corresponding to the claimed amounts, would have been obvious absent showing of unexpected results that can be clearly attributed to the claimed amounts. The reference does not disclose any additional filler, however, adding microballoon or microsphere polymeric filler to a polymeric composition (containing virtually any base thermoplastic polymer) is notoriously known in the art to reduce the polymer matrix density and to improve other properties of the polymeric matrix. This position is supported by the disclosure of Christy or Miller, for example, expressly disclosing that addition of polymeric microspheres would have a predicted impact on the properties of the base polymeric matrix. See Christy, Figure 1, and Miller column 4, lines 30-59. Thus, addition of microballons to the compositions disclosed in SU '036 would have been obvious to reduce the density of the modeling compound disclosed in the SU reference, and the amount of the microsphere filler can be varied depending on the desired final density and other properties.

While the primary references may disclose a different order of adding the claimed components (as per the method claims), it has been long held by the court that selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. See *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946); or *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.). Thus the claimed process would have been obvious from the combined teachings of the above cited references.

Claimd 20-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerace.

The disclosure of Gerace is discussed above. As discussed above, while the reference may not discuss the particular order of adding the claimed components, selection of any order of mixing ingredients is prima facie obvious in the absence of showing of unexpected results that can be clearly attributed to the claimed sequence of steps.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. WO 03/014220 discloses PVC based microballoon filler plasticized compositions that prior to expansion exhibit viscous properties suitable for modeling compounds.

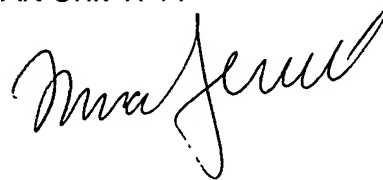
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irina S. Zemel  
Examiner  
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A handwritten signature in black ink, appearing to read 'Irina Zemel', written in a cursive style.

ISZ